

# EXHIBIT A

SYNP 106-0  
MAH/KS

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/007,867	01/09/2006	6434733	SYNP106	7009
36454	7590	02/28/2006	EXAMINER	
SYNOPSYS, INC. C/O HAYNES BEFFEL & WOLFELD LLP P.O. BOX 366 HALF MOON BAY, CA 94019		ART UNIT		PAPER NUMBER

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## HAYNES BEFFEL &amp; WOLFELD LLP

DOCKETED: 3/7/06 BY: CR  
 ACTION: US - Patent Owner's Statement  
 DUE DATES: 4/28/06 - Final  
 DOCKET NO. SYNP 106-0

HAYNES BEFFEL &amp; WOLFELD LLP

MAR 06 2006

RECEIVED

<b>Order Granting / Denying Request For Ex Parte Reexamination</b>	<b>Control No.</b>	<b>Patent Under Reexamination</b>	
	90/007,867	6434733	
	<b>Examiner</b>	<b>Art Unit</b>	
	St. John Courtenay III	3992	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The request for ex parte reexamination filed 09 January 2006 has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

Attachments: a) PTO-892, b) PTO-1449, c) Other: \_\_\_\_\_

1.  The request for ex parte reexamination is GRANTED.

RESPONSE TIMES ARE SET AS FOLLOWS:

For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

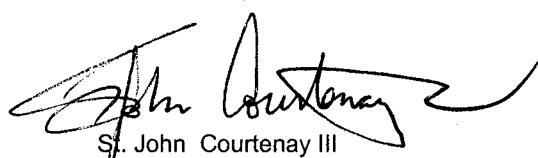
For Requester's Reply (optional): TWO MONTHS from the **date of service** of any timely filed Patent Owner's Statement (37 CFR 1.535). **NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.** If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.

2.  The request for ex parte reexamination is DENIED.

This decision is not appealable (35 U.S.C. 303(c)). Requester may seek review by petition to the Commissioner under 37 CFR 1.181 within ONE MONTH from the mailing date of this communication (37 CFR 1.515(c)). **EXTENSION OF TIME TO FILE SUCH A PETITION UNDER 37 CFR 1.181 ARE AVAILABLE ONLY BY PETITION TO SUSPEND OR WAIVE THE REGULATIONS UNDER 37 CFR 1.183.**

In due course, a refund under 37 CFR 1.26 ( c ) will be made to requester:

- a)  by Treasury check or,
- b)  by credit to Deposit Account No. \_\_\_\_\_, or
- c)  by credit to a credit card account, unless otherwise notified (35 U.S.C. 303(c)).



St. John Courtenay III  
Primary Examiner  
Art Unit: 3992

cc:Requester ( if third party requester )

U.S. Patent and Trademark Office  
PTOL-471 (Rev. 04-01)

Office Action in Ex Parte Reexamination

Part of Paper No. 20061224

Application/Control Number: 90/007,867  
Art Unit: 3992

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**Response to Request for *ex parte* Reexamination**

1. Reexamination has been requested for claims 1 and 8 of U.S. Patent number 6,434,733 ('733 patent).
2. A substantial new question of patentability affecting at least claim 1 of United States Patent number 6,434,733 is raised by the request for *ex parte* reexamination.
3. The '733 patent is currently assigned to:

SYNOPSYS, INC.  
700 EAST MIDDLEFIELD ROAD  
MOUNTAIN VIEW, CALIFORNIA 94043

4. The '733 patent application filing date was March 24, 1999 and the patent issued on Aug. 13, 2002. There is no claim to priority of record.
5. In the request for reexamination, the Patent Owner states that the following references raise a substantial new question of patentability with respect to claims 1 and 8 for which reexamination is requested:

- Barbagallo et al., "Scan Insertion Criteria for Low Design Impact", Proc IEEE VLSI Test Symposium, 1996 (hereinafter Barbagallo-1").
- Barbagallo et al., "Layout-driven scan chain partitioning and reordering", IEEE European Test Workshop, 1996 (hereinafter "Barbagallo-2").

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6. The aforementioned newly cited references were not of record in the file of the '733 patent and are not cumulative to the art of record in the original file.

7. It is agreed that there exists a substantial likelihood that at least the Barbagallo-1 reference would have been considered important by a reasonable Examiner in deciding whether or not at least claim 1 was patentable, for the reasons discussed *infra*:

8. As per independent claim 1, Barbagallo-1 teaches a computer implemented process for electronic design automation, said process comprising the steps of:

- partitioning said scan chain into a plurality of sets of re-orderable scan cells, wherein partitioning information which describes the scan cells of each set is generated [e.g., Barbagallo-1 teaches driving the partitioning process with logical constraints only, see page 2, col. 2, under the heading "3. Proposed Approach": i.e., "In our first implementation, we chose to drive the partitioning process with *logical constraints only* ..." ] ; and
- based on said partitioning information, re-ordering scan cells of said scan chain during layout processes of said integrated circuit design, said step of re-ordering only re-ordering scan cells of a same set and not re-ordering scan cells of different sets [e.g., Barbagallo-1 teaches that physical data are used to select the ordering inside each scan chain, page 2, col. 2, under the heading "3. Proposed Approach": i.e., "In our first implementation, we chose to drive the **partitioning process** with *logical constraints only*, while *physical*

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data are used to select the **ordering** inside each scan chain. In Fig. 1, a pseudo-code of the algorithm is presented.”].

## Conclusion

9. All claims are subject to reexamination.
10. Extensions of time under 37 C.F.R §1.136(a) will not be permitted in this proceeding because the provisions of 37 C.F.R. §1.136 apply only to “an Applicant” and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. §305 requires that *ex parte* reexamination proceedings “will be conducted with **special dispatch**” (37 C.F.R. §1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 C.F.R. §1.550(c).
11. The Patent Owner is reminded of the continuing responsibility under 37 C.F.R. § 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent number 6,434,733 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

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Art Unit: 3992

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## **How to Communicate with the USPTO**

ALL correspondence relating to this *ex partes* reexamination proceeding should be directed as follows:

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Attn: Mail Stop "Ex Parte Reexam"  
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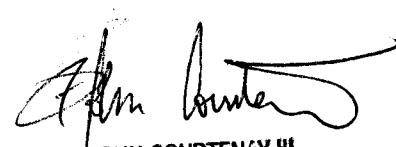
Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed: St. John Courtenay III  
(Monday – Friday 9:00 AM – 5:30 PM)

Primary Examiner  
Central Reexamination Unit 3992  
(571) 272-3761

Conferrees:  
Mr. Reinhard SPRE-CBU-3992

Erik Kline

  
ST. JOHN COURTEENAY III  
PRIMARY EXAMINER

90/007,867

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PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Patent Number	6,434,733 <i>90/007,867</i>
		Issue Date	August 13, 2002
		First Named Inventor	Duggirala et al.
		Art Unit	3992
		Examiner Name	COURTENAY
Sheet	1	of	2
		Attorney Docket Number	SYNP 106

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
<i>SC</i>	C1	S. Barbagallo et al. "Scan Insertion Criteria for Low Design Impact", Proc IEEE VLSI Test Symposium, 1996, consisting of 7 pages.		
<i>SC</i>	C2	S. Barbagallo et al "Layout-driven Scan Chain Partitioning and Reordering", IEEE European Test Workshop, 1996, consisting of 3 pages.		
<i>SC</i>	C3	Lin et al. "Layout-driven Chaining of Scan Flip-Flops", IEEE Proc. Comput. Digit. Tech., Vol. 143, No. 6, November 1996, pp. 421-425		
<i>SC</i>	C4	Chen et al. "Layout Driven Selecting and Chaining of Partial Scan Flip-Flops", 33rd Design Automation Conference June 1996, consisting of 6 pages.		
<i>SC</i>	C5	Hirech et al. "A New Approach to Scan Chain Reordering Using Physical Design Information", IEEE Proceedings of the ProceedingsInternational Test Conference, 1998 pp. 348-355.		
<i>SC</i>	C6	Kobayashi et al. "A VLSI Scan-Chain Optimization Algorithm for Multiple Scan-Paths", IEICE Trans. Fundamentals, Vol. E82-A, No. 11 November 1999, pp. 2499-2504.		
<i>SC</i>	C7	K.D. Boese et al. "Scan Chain Optimization: Heuristic and Optimal Solutions", Internal Report, UCLA CS Dept., October 1994, pp.1-19. Available at <a href="http://citeseer.csail.mit.edu">http://citeseer.csail.mit.edu</a> .		
<i>SC</i>	C8	Cirasella et al. "The Asymmetric Traveling Salesman Problem: Algorithms, Instance Generators, and Tests", ALENEX 2001 Proceedings, Springer Lecture Notes in Computer Science 2153, pp. 32-59.		
<i>SC</i>	C9	Berthelot et al. "An Efficient Linear Time Algorithm For Scan Chain Optimization and Repartitioning", ITC International Test Conference, IEEE 2002, pp. 781-787.		
<i>SC</i>	C10	S. Barbagallo et al. "Scan Chain Partitioning and Re-ordering Based on Layout Information: An Industrial Experience", DATE98: Design, Automation and Test in Europe, February 1998, 5 pages.		

Examiner Signature	<i>S. COURTENAY</i>	Date Considered	<i>2-24-2006</i>
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450; Alexandria, VA 22313-1450.

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		Patent Number	6,434,733 90/007,867
		Issue Date	August 13, 2002
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		Art Unit	3992
		Examiner Name	COURTENAY
Sheet 1	of 1	Attorney Docket Number	SYNP 106

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
SC	C1	S. Barbagallo et al. "Scan Insertion Criteria for Low Design Impact", Proc IEEE VLSI Test Symposium, 1996, consisting of 7 pages.	
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Examiner Signature	S. COURTENAY	Date Considered	2-24-2006
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